

San Jorge Extensional Structures, Assessment Unit 60580101
Assessment Results Summary

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				F95	F50	F5	Mean
Oil Fields	1	1.00	110	325	660	347	103	315	701	348	2	6	15	7	19	52	143	62
Gas Fields	6						720	2,466	5,355	2,691	13	48	114	54	139	399	1,091	474
Total		1.00	110	325	660	347	823	2,780	6,057	3,038	15	54	128	61				

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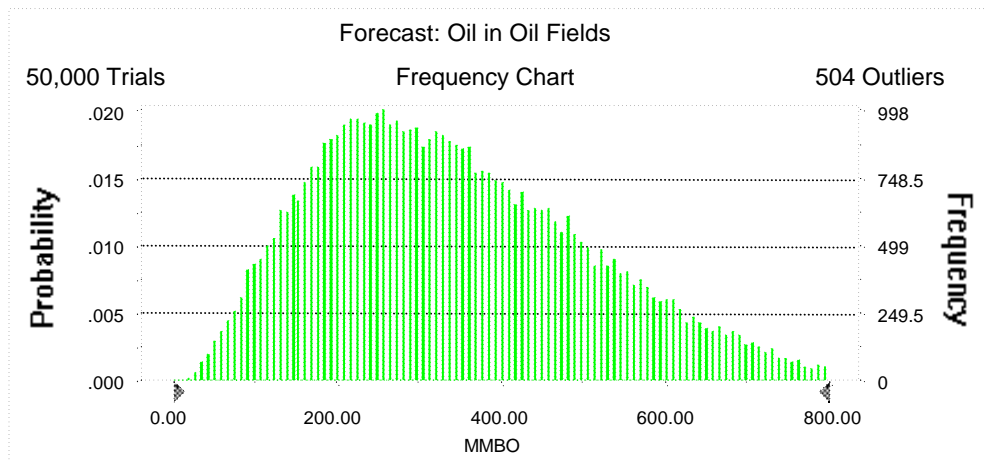
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 800.00 MMBO
Entire range is from 13.40 to 1,240.40 MMBO
After 50,000 trials, the standard error of the mean is 0.76

Statistics:

	<u>Value</u>
Trials	50000
Mean	347.25
Median	324.59
Mode	---
Standard Deviation	169.02
Variance	28,568.32
Skewness	0.63
Kurtosis	3.11
Coefficient of Variability	0.49
Range Minimum	13.40
Range Maximum	1,240.40
Range Width	1,227.00
Mean Standard Error	0.76



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	13.40
95%	110.14
90%	145.23
85%	173.26
80%	196.77
75%	218.63
70%	239.39
65%	259.97
60%	280.79
55%	302.34
50%	324.59
45%	347.02
40%	370.59
35%	396.58
30%	425.17
25%	456.10
20%	489.69
15%	530.94
10%	581.80
5%	659.66
0%	1,240.40

End of Forecast

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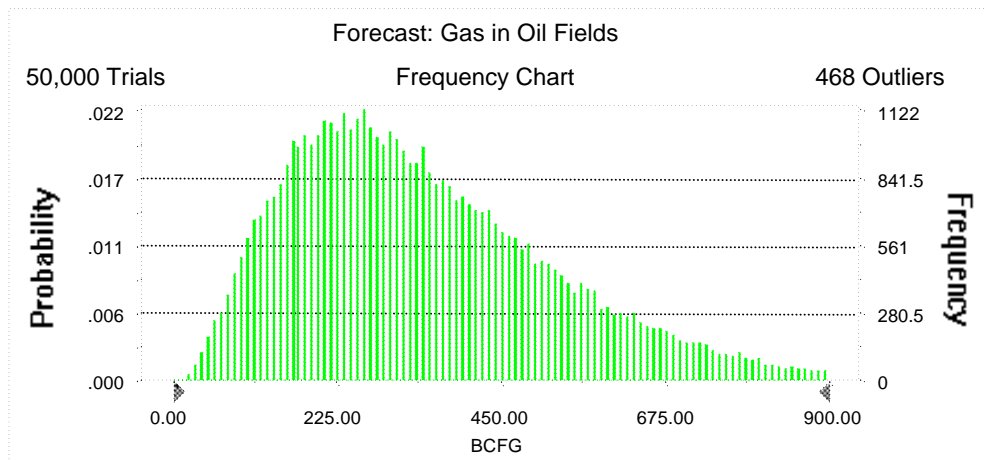
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 900.00 BCFG
Entire range is from 9.49 to 1,565.92 BCFG
After 50,000 trials, the standard error of the mean is 0.83

Statistics:

	<u>Value</u>
Trials	50000
Mean	347.68
Median	314.76
Mode	---
Standard Deviation	186.62
Variance	34,825.40
Skewness	0.91
Kurtosis	3.92
Coefficient of Variability	0.54
Range Minimum	9.49
Range Maximum	1,565.92
Range Width	1,556.43
Mean Standard Error	0.83



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	9.49
95%	102.79
90%	135.74
85%	162.58
80%	185.44
75%	207.74
70%	229.05
65%	250.01
60%	270.51
55%	292.45
50%	314.76
45%	338.89
40%	364.06
35%	391.79
30%	422.46
25%	455.55
20%	494.72
15%	542.39
10%	605.33
5%	701.26
0%	1,565.92

End of Forecast

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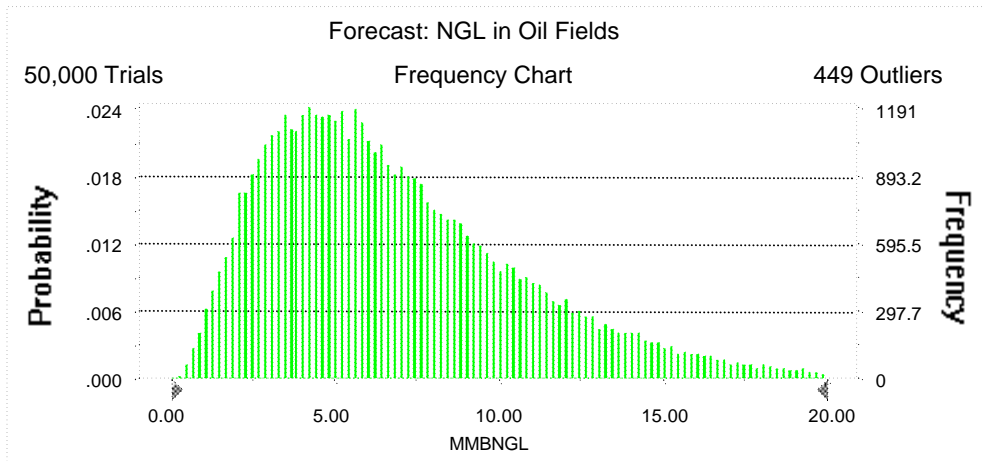
Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 20.00 MMBNGL
Entire range is from 0.18 to 38.26 MMBNGL
After 50,000 trials, the standard error of the mean is 0.02

Statistics:

	<u>Value</u>
Trials	50000
Mean	6.95
Median	6.13
Mode	---
Standard Deviation	4.07
Variance	16.55
Skewness	1.16
Kurtosis	4.95
Coefficient of Variability	0.59
Range Minimum	0.18
Range Maximum	38.26
Range Width	38.07
Mean Standard Error	0.02



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.18
95%	1.92
90%	2.54
85%	3.04
80%	3.49
75%	3.94
70%	4.38
65%	4.80
60%	5.24
55%	5.68
50%	6.13
45%	6.62
40%	7.16
35%	7.73
30%	8.39
25%	9.12
20%	10.00
15%	11.07
10%	12.48
5%	14.72
0%	38.26

End of Forecast

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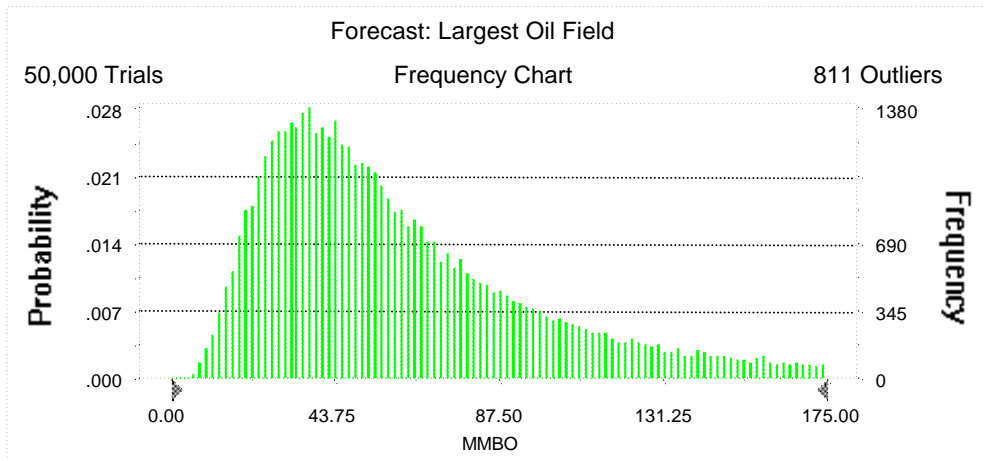
Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 175.00 MMBO
Entire range is from 3.26 to 200.00 MMBO
After 50,000 trials, the standard error of the mean is 0.17

Statistics:

	<u>Value</u>
Trials	50000
Mean	62.16
Median	52.13
Mode	---
Standard Deviation	37.94
Variance	1,439.47
Skewness	1.24
Kurtosis	4.29
Coefficient of Variability	0.61
Range Minimum	3.26
Range Maximum	200.00
Range Width	196.73
Mean Standard Error	0.17



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	3.26
95%	19.05
90%	23.90
85%	27.70
80%	31.19
75%	34.53
70%	37.80
65%	41.14
60%	44.62
55%	48.18
50%	52.13
45%	56.26
40%	60.99
35%	66.35
30%	72.48
25%	79.68
20%	88.96
15%	100.43
10%	116.55
5%	142.99
0%	200.00

End of Forecast

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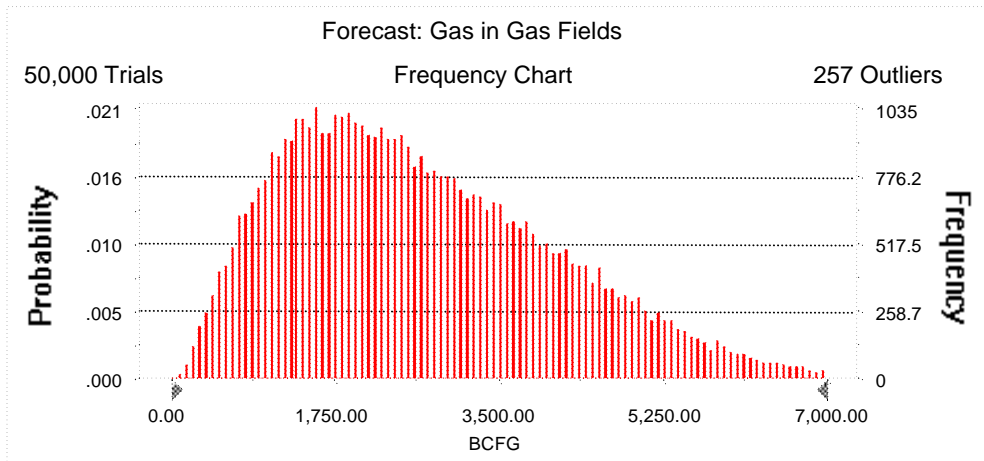
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 7,000.00 BCFG
Entire range is from 89.57 to 10,556.27 BCFG
After 50,000 trials, the standard error of the mean is 6.47

Statistics:

	<u>Value</u>
Trials	50000
Mean	2,690.52
Median	2,465.56
Mode	---
Standard Deviation	1,447.75
Variance	2,095,977.43
Skewness	0.67
Kurtosis	3.09
Coefficient of Variability	0.54
Range Minimum	89.57
Range Maximum	10,556.27
Range Width	10,466.69
Mean Standard Error	6.47



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	89.57
95%	720.46
90%	982.62
85%	1,194.54
80%	1,381.07
75%	1,558.25
70%	1,738.43
65%	1,913.78
60%	2,090.57
55%	2,277.52
50%	2,465.56
45%	2,667.39
40%	2,883.29
35%	3,108.10
30%	3,361.51
25%	3,630.67
20%	3,932.44
15%	4,287.97
10%	4,726.03
5%	5,355.49
0%	10,556.27

End of Forecast

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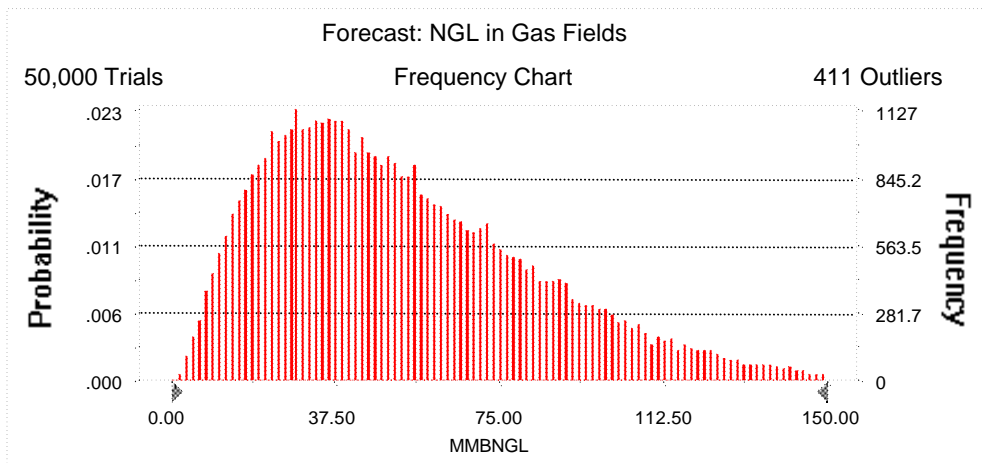
Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 150.00 MMBNGL
Entire range is from 1.45 to 232.42 MMBNGL
After 50,000 trials, the standard error of the mean is 0.14

Statistics:

	<u>Value</u>
Trials	50000
Mean	53.78
Median	47.84
Mode	---
Standard Deviation	31.50
Variance	992.35
Skewness	0.95
Kurtosis	3.92
Coefficient of Variability	0.59
Range Minimum	1.45
Range Maximum	232.42
Range Width	230.98
Mean Standard Error	0.14



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.45
95%	13.41
90%	18.39
85%	22.56
80%	26.20
75%	29.76
70%	33.26
65%	36.74
60%	40.23
55%	43.96
50%	47.84
45%	51.90
40%	56.24
35%	61.01
30%	66.39
25%	72.34
20%	78.98
15%	87.09
10%	97.42
5%	113.74
0%	232.42

End of Forecast

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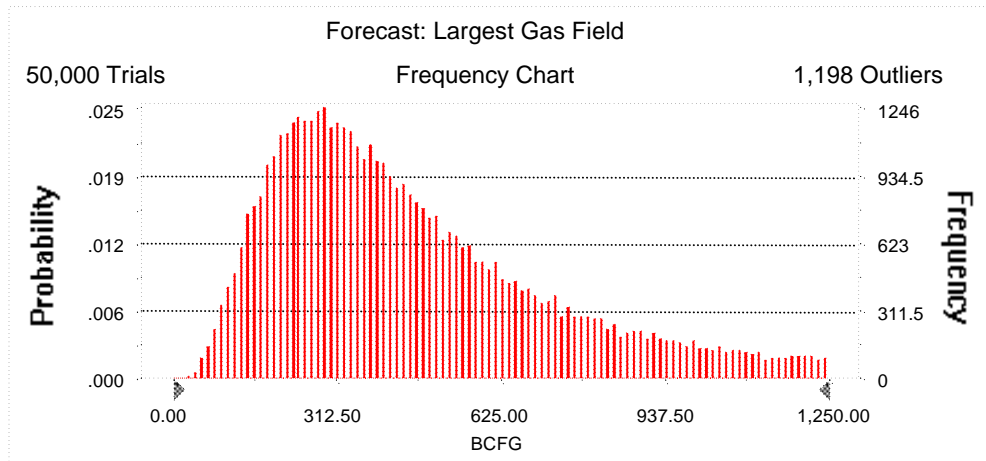
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 1,250.00 BCFG
Entire range is from 23.72 to 1,499.77 BCFG
After 50,000 trials, the standard error of the mean is 1.30

Statistics:

	<u>Value</u>
Trials	50000
Mean	473.93
Median	398.97
Mode	---
Standard Deviation	289.69
Variance	83,918.61
Skewness	1.18
Kurtosis	4.06
Coefficient of Variability	0.61
Range Minimum	23.72
Range Maximum	1,499.77
Range Width	1,476.04
Mean Standard Error	1.30



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	23.72
95%	139.27
90%	177.87
85%	208.13
80%	235.06
75%	261.25
70%	287.16
65%	313.05
60%	339.69
55%	368.71
50%	398.97
45%	432.15
40%	468.22
35%	508.34
30%	555.93
25%	612.08
20%	680.84
15%	770.39
10%	895.19
5%	1,091.45
0%	1,499.77

End of Forecast

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Assumptions

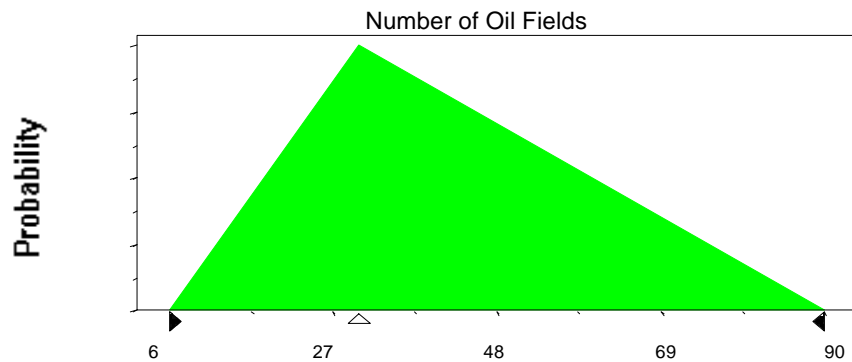
Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	6
Likeliest	30
Maximum	90

Selected range is from 6 to 90

Mean value in simulation was 42



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	7.54
Standard Deviation	17.38

Shifted parameters

8.54
17.38

Selected range is from 0.00 to 199.00

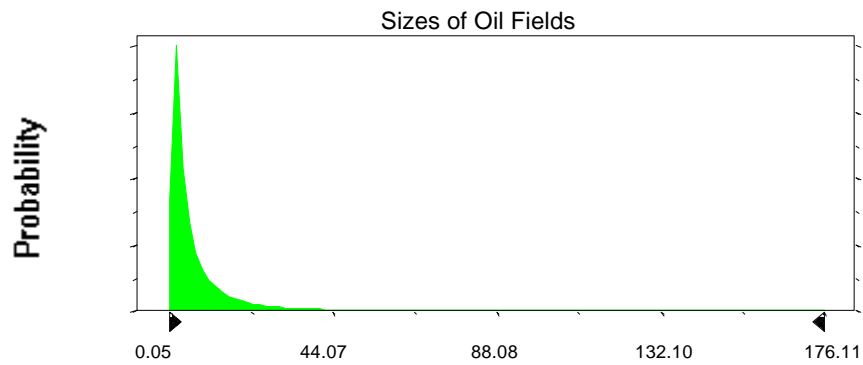
1.00 to 200.00

Mean value in simulation was 7.19

8.19

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Assumption: Sizes of Oil Fields (cont'd)



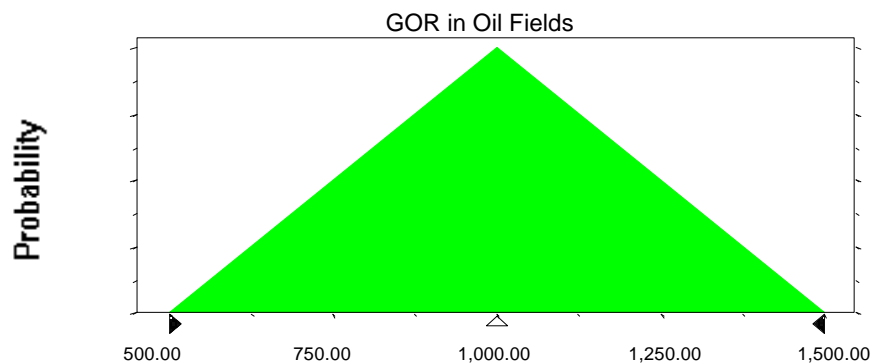
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	500.00
Likeliest	1,000.00
Maximum	1,500.00

Selected range is from 500.00 to 1,500.00

Mean value in simulation was 1,001.51



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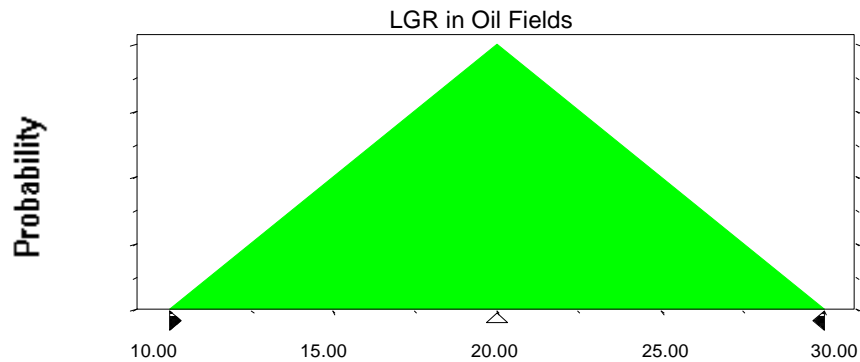
Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	10.00
Likeliest	20.00
Maximum	30.00

Selected range is from 10.00 to 30.00

Mean value in simulation was 20.00



Assumption: Number of Gas Fields

Triangular distribution with parameters:

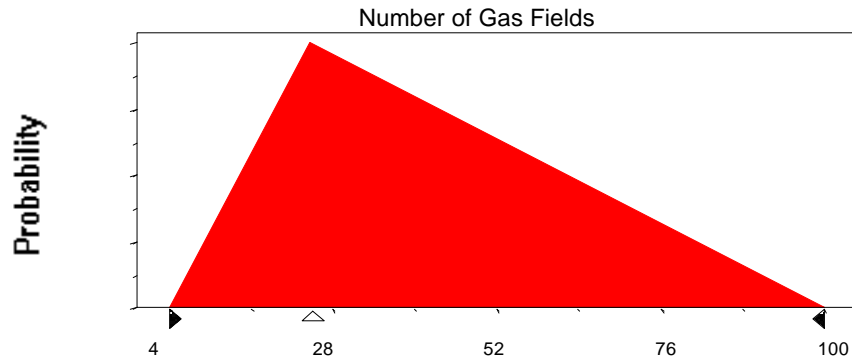
Minimum	4
Likeliest	25
Maximum	100

Selected range is from 4 to 100

Mean value in simulation was 43

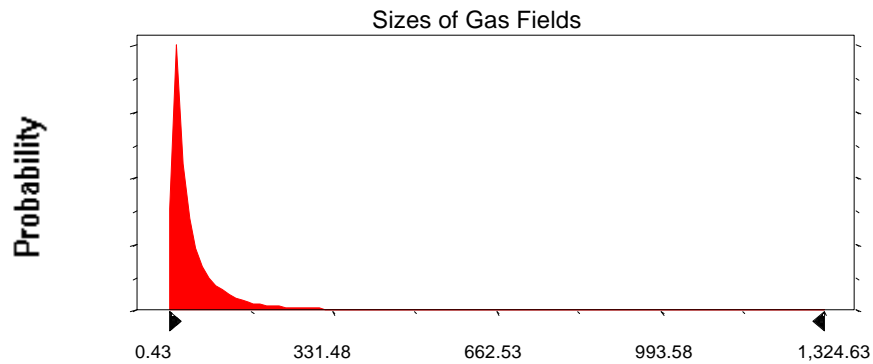
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	58.66	64.66
Standard Deviation	130.83	130.83
Selected range is from 0.00 to 1,494.00		6.00 to 1,500.00
Mean value in simulation was 56.29		62.29



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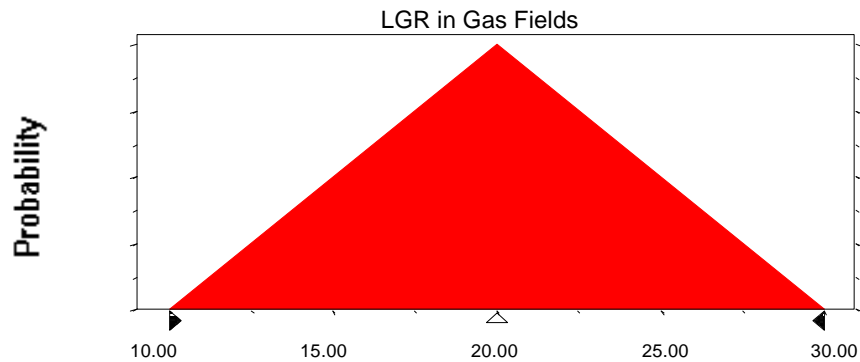
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	10.00
Likeliest	20.00
Maximum	30.00

Selected range is from 10.00 to 30.00

Mean value in simulation was 19.99



End of Assumptions

Simulation started on 2/25/99 at 10:43:48

Simulation stopped on 2/25/99 at 11:32:35